

LaBarque Creek Watershed

Conservation Opportunity Area



Ozark
Highlands



LaBarque Creek is one of Jefferson County's healthiest Ozark streams.

Tracy Boaz, Missouri Department of Conservation

The LaBarque Creek Watershed features a high quality stream and rugged sandstone terrain surprisingly close to St. Louis. A combination of ecological values and development patterns make the watershed an excellent candidate for conservation efforts.

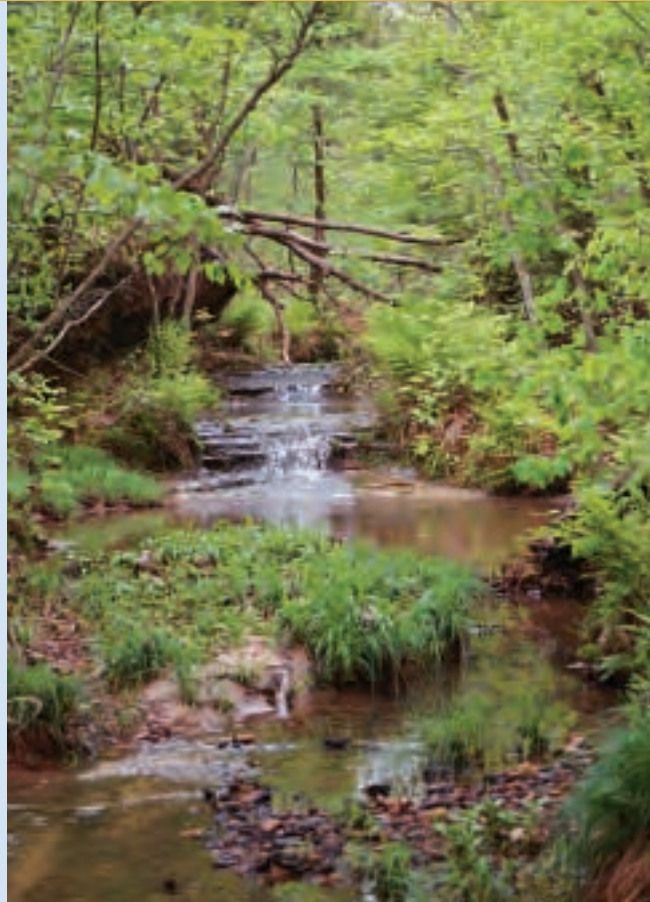
The 13 square mile wooded watershed lies in northwest Jefferson County and enters the Meramec River. The LaBarque Creek Watershed contained approximately 1,300 residents in the year 2000, a density of roughly 100 people per square mile. However, the population is concentrated on only 20% of the watershed land.

The low level of disturbance in the watershed produces a high quality aquatic system. LaBarque Creek provides over six miles of permanently flowing stream that supports 42 species of fish, including black bass and sunfish. This level of stream diversity and richness can be found nowhere closer to the St. Louis area.

The Conservation Opportunity Area's underlying sandstone geology produces a dramatic landscape. Flowing water carves cliffs, waterfalls, bowls and overhangs into the soft sandstone. The resulting deep, sheltered moist canyons and ravines contain several state-listed plants found on only a few other sites in Missouri.

LaBarque Creek Watershed Conservation Strategies

- Protect and enhance aquatic biodiversity.
- Protect and enhance terrestrial biodiversity.
- Engage residents and other stakeholders as partners in conserving the watershed.
- Use watershed planning in the LaBarque Creek Watershed as a model for watershed planning in Jefferson County and throughout the Meramec Basin.
- Permanently conserve watershed integrity through best management practices and permanent land protection tools (easement, acquisition or other special practices).



Tracy Boaz, Missouri Department of Conservation

LaBarque Creek's forested stream banks prevent soil erosion and protect water quality.

Priority Research and Inventory Needs

- Inventory aquatic invertebrates.
- Develop appropriate methods and standards to test water quality and quantity.
- Use models to determine stormwater and sediment control needs for individual homes and subdivisions (existing and planned).
- Investigate the effects of septic systems, lagoons, roads and bridges on stream health; develop best management practices.
- Inventory terrestrial natural communities (including invasive and exotic species).
- Conduct stakeholder surveys.
- Find private funding sources.

Conservation Partners

Existing: The Nature Conservancy – Missouri Chapter (TNC); Ozark Regional Land Trust; Trust for Public Land; The Open Space Council; Missouri Conservation Heritage Foundation (MCHF); East-West Gateway Council of Governments; U.S. Army Corps of Engineers - St. Louis District; Jefferson County Government; LaBarque Creek Watershed Partners (including residents); Natural Resources Conservation Service; Environmental Protection Agency (EPA); Missouri Department of Conservation (MDC)

Potential: Audubon Missouri; St. Louis Audubon Society; Wild Canid Research and Survival Center; Webster Groves Nature Study Society; Washington University; Pacific Ring; Meramec River Recreation Association; Stream Teams; National Wild Turkey Federation (NWTf); Missouri Department of Natural Resources (DNR); U.S. Fish & Wildlife Service (USFWS)

LaBarque Creek Watershed Conservation Opportunity Area



Funding Sources

Existing: MDC annual budget; EPA Region 7 funds; MCHF Stream Stewardship Trust Fund

Promising Future Sources: MDC State Wildlife Grants; MDC Wildlife Diversity Funds; MDC Forest Legacy Program; MDC Private Lands Cost Share Program; USFWS Partners for Fish & Wildlife Program; DNR 319 Grants; MCHF grants; NWTF Wild Turkey Super Fund

Existing Conservation Network

LaBarque Creek Conservation Area; Hilda Young Conservation Area; Wild Canid Research and Survival Center

Bleeding shiners are one of 42 species of fish found in LaBarque Creek. Their habitat range is limited to streams in the Ozark Highlands of Missouri and Arkansas.



Cliff White, Missouri Department of Conservation

Sandstone Cliffs



Tracy Boaz, Missouri Department of Conservation

The LaBarque Creek Watershed contains numerous sandstone cliffs ranging in height from 10 to 40 feet. Sandstone rock, evidence that an ancient sea once covered much of Missouri, forms when sand particles compact together over millions of years.

Conservation Challenges

The LaBarque Creek Watershed demonstrates a healthy and functioning landscape near a highly urbanized region. Potential challenges to conservation success include development pressure

(inside and outside the Conservation Opportunity Area), lack of funding and staff time, landowner participation and encroachment of invasive and exotic species.

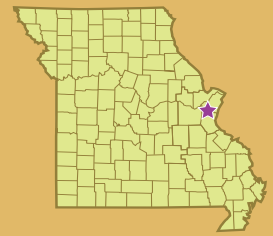
To learn more about the LaBarque Creek Watershed Conservation Opportunity Area, please contact:



Missouri Department of Conservation
Wildlife Division
P.O. Box 180
Jefferson City, MO 65102-0180

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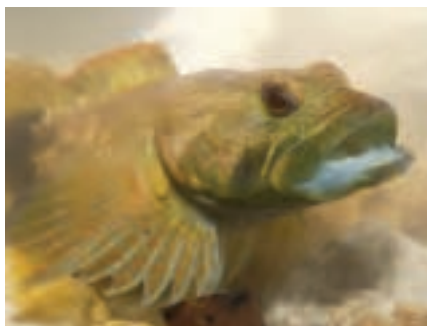
Land Stewardship Initiative



Ozark
Highlands



Bleeding Shiner



Mottled Sculpin



Sandstone Bluff

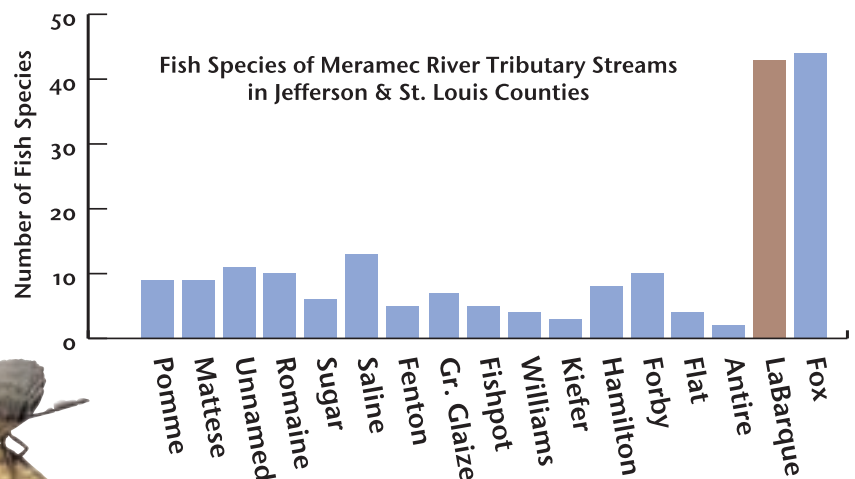
LaBarque Creek provides over six miles of high quality Ozark stream in northwest Jefferson County. Although extremely close to the St. Louis metropolis, LaBarque Creek supports 42 species of fish, one of the highest levels of aquatic diversity in the region (see table).

Current land development practices pose a major threat to urban stream health through increased stormwater runoff and erosion. Additional sediment in creeks and streams results in less oxygen and habitat available for fish and other aquatic organisms.

LaBarque Creek currently retains much of its natural character, but the rapid rate of development in the St. Louis area could impact stream quality. Working with private landowners to use land conservation tools will ensure that LaBarque Creek and its watershed remains a natural treasure.

Land Conservation Tools:

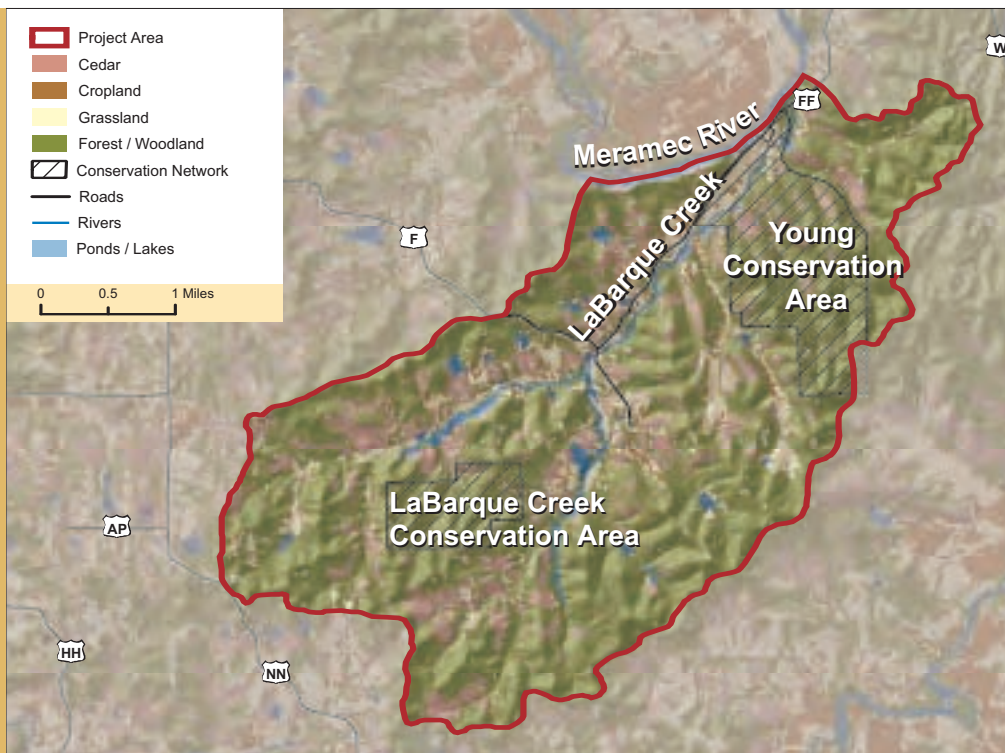
- Donated conservation easements
- Purchased conservation easements
- Community land trusts
- Land donations
- Deed restrictions
- Conservation buyer program



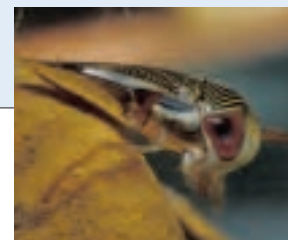
Landscape	Community	Species
LaBarque Creek Watershed	Ozark Headwaters Stream	Bleeding Shiner, Bigeye Shiner, Bluntnose Minnow, Silverjaw Minnow, Fantail Darter, Greenside Darter, Hornyhead Chub, Mottled Sculpin, Orangethroat darter, Ozark Minnow, Rainbow Darter, Slender Madtom

Strategic Conservation Goal:

Protect and conserve the natural integrity of LaBarque Creek and its 8,400-acre watershed by implementing a land conservation program.



Desired Change	Proposed Monitoring
↓ Unaltered natural stream channel	Verify channel condition using ground or aerial surveys every five years
↑ Maintained or improved wooded riparian corridors to protect stream habitat	Verify riparian corridor condition using aerial and ground surveys every five years
↑ Maintained healthy aquatic community integrity	Survey fish and aquatic animals every five years
↓ Unaltered floodplain	Assess land cover using satellite imagery or aerial photography every five years
↑ Sustained or improved water quantity and quality	Monitor stream flow, suspended solids and related water chemistry



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